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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,112	03/15/2001	Josef Mayer	HOE-609	3297

20028 7590 11/18/2003

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EXAMINER

KIM, PAUL D

ART UNIT PAPER NUMBER

3729

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,112

Applicant(s)

MAYER ET AL.

Examiner

Paul D Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,5-42 and 58-62 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,22-42,59 and 60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-21,58,61 and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is a response to the restriction requirement and amendment filed on 9/17/2003.

Response to the Restriction Requirement

2. Applicant's election of Group I, Species B, claims 5-21, 58, 61 and 62, in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
3. Claims 2, 3, 22-42, 59 and 60 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --A PROCESS FOR FABRICATING A POSITION SENSOR--.

Claim Objections

5. Claims 5-21, 61 and 62 are objected to because of the following informalities:

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Re. Claims 5-21, 61 and 62: Change the phrase "A process" in line 1 to –The process--.

Re. Claim 9: The limitation "its" in line 2 is not clear what the "its" is indicated. Clarification is required.

Re. Claim 11: The limitation "its" in line 2 is not clear what the "its" is indicated. Clarification is required.

Re. Claim 13: The limitation "the longitudinal direction" recited in line 2 should be –a longitudinal direction--.

Re. Claim 14: The limitation "the longitudinal axis" recited in lines 3-4 should be – a longitudinal axis--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 20 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The recited limitation "complementary fixing means" inline 3 of claim 20 does not disclose in the specification and appears to be a new matter.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re. Claim 11: The limitation "parallel to the direction of the gravity" recited in lines 2-3 renders the claim vague and indefinite. It is unclear so as to what the direction of the gravity is. There is no further definition of the direction of the gravity recited in the specification.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 58, 5-21, as best understood in view of the rejections under 112 first and second paragraphs, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gass (US PAT. 5,789,920) in view of Harris (US PAT. 4,456,834).

Gass teaches a process of producing a position sensor comprising steps of: providing a hollow housing (12) and a carrier (16) having an electric circuit thereon; providing an electrical connection element (70) on the carrier; and inserting the carrier into the open end of the housing and introducing a molding compound (60) into the housing as shown in Fig. 1 (col. 5, line 1 to col. 7, line 10).

As per claims 5 and 6 the connection element is connected with a plurality of connection pin (76) to the carrier (col. 6, lines 2-4).

As per claim 7 the connection element is soldered to the carrier (col. 6, lines 2-4).

As per claim 10 the carrier-connection element combination is located on the sensor element (30) (col. 5, lines 12-15).

As per claim 12 the molding compound is introduced up to the latter of the housing (col. 6, lines 13-17).

As per claims 13 and 14 the carrier-connection element combination is aligned in the longitudinal direction or longitudinal axis of the housing as shown in Fig. 1.

However, Gass does not teach a cup shaped inset to enclose the one end as recited in claims 1 and 8 and a cap as recited in claim 15 of the housing. Harris teaches a proximity switch having a cup shaped inset (14) being pushed into the housing and a cap (26) of a housing (10) as shown in Fig. 1 for enclose the housing. As per claim 16 a stop is provided on the middle of the cap (col. 2, lines 26-63). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a fabricating process of Gass by a cup shaped inset and a cap as taught by Harris for the purpose of enclosing the housing to complete.

Also, as per claim 17, even though Harris does not disclose whether the molding compound introduced into the housing or not, a bottom portion of the cap is inserted into the housing. Therefore, it would also have been obvious at the time the invention was made to a person having ordinary skill in the art to have provided the capping process as taught by Harris by prior to hardening of the molding compound of Gass for enclosing the housing like a hermetic sealing.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gass in view of Harris, and further in view of Sauer et al. (US PAT. 5,602,373).

Gass, modified by Harris, teaches all of the limitations as set forth above except a force-locking manner between the housing and the insert. Sauer et al. teach a different pressure switch including a force-locking manner between the housing and a membrane (5) as shown in Fig. 1 for tightly securing between two members (col. 3, lines 52-63). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a fabricating process of Gass, modified by Harris, by a force-locking manner as taught by Sauer et al. for the purpose of tightly securing between the housing and the insert.

13. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gass in view of Harris, and further in view of Gass et al. (DE-19504608).

Gass, modified by Harris, teaches all of the limitations as set forth above except the cap is positioned on the carrier-connection element combination prior to introduce into the housing. Gass et al. teach a process of producing a position sensor including a process of providing a cap (48) on a carrier (14) and connection element (64)

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combination prior to introduce into a housing (10) as shown in Fig. 1 for reducing a production step in order to reduce a production cost. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a fabricating process of Gass, modified by Harris, by positioning the cap on the carrier-connection element combination prior to introduce into the housing as taught by Gass et al. for the purpose of reducing a production step in order to reduce a production cost.

14. Claims 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gass in view of Harris, and further in view of Guillot et al. (US PAT. 5,749,143).

Gass, modified by Harris, teaches all of the limitations as set forth above except introducing the molding compound prior to introduce the carrier into the housing. Guillot et al. teach a process of forming an electronic module including steps of introducing an encapsulant into a cap (20) from an one opening end and then inserting an electronic circuit (2) into the filled cap as shown in Fig. 3A, 3B and 3C for allowing the electrical assembly to seat to a proper depth (col. 7, lines 23-43). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a fabricating process of Gass, modified by Harris, by introducing an encapsulant into a cap prior to introduce an electronic circuit element into the cap as taught by Guillot et al. for the purpose of allowing the carrier to seat to a proper depth in the housing.

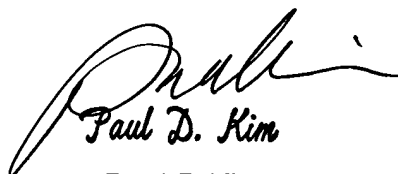
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Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Kim whose telephone number is 703-308-8356. The examiner can normally be reached on Tuesday-Friday between 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5648.

A handwritten signature in black ink, appearing to read "Paul D. Kim", with a stylized flourish extending from the end of the name.

Paul D Kim
Examiner
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